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## Southeast Ohio: Industry Driver and Occupational Highlights

Ohio Board of Regents

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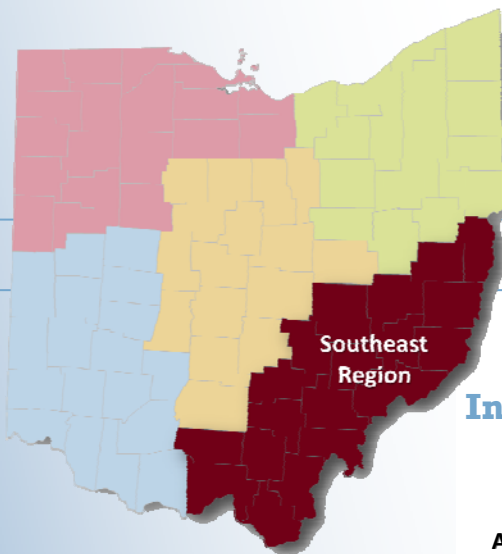
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Southeast Ohio's most concentrated industries include the Energy Industries (Crude Petroleum & Natural Gas Extraction), Chemicals & Chemical-based Products Industries (including basic inorganic chemical manufacturing) with a growth rate expected to outpace the U.S. growth rate by mid-2015, and the Agribusiness/Food Processing & Technology Industries (including crop & animal production & frozen specialty food manufacturing).

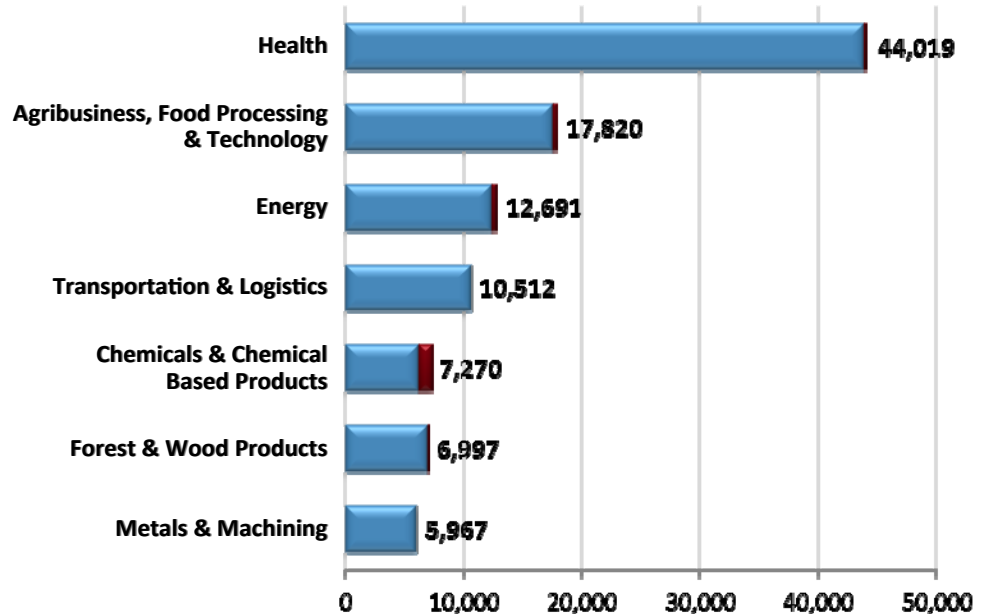
The Health Industries employ the largest number of people, over 44,000, and this number is expected to increase by nearly 5,000 employees over the next five years. By 2016, the Health Industries will employ nearly 15% of all workers in Southeast Ohio. Another service oriented industry that employs a substantial number of people is the Transportation & Logistics Industries, employing over 10,500.

The bar chart to the right presents total employment in each industry group, with the shaded area of the bar indicating very little employment that is double-counted across more than one industry group.

The bubble chart presents the location quotient (LQ) for the industry groupings. Economists commonly cite LQs over 1.25 as indicating competitive advantage. A regional LQ of 1.25 means regional employment is 25% higher than the national average in the selected industries. The chart shows that most of Southeast Ohio's highly concentrated industries are expected to become more concentrated over the next five years. The Energy Industries stand out in terms of their level of concentration (LQ = 3.22) meaning that its concentration in Southeast Ohio is more than three times the national average.

## Industry Driver & Occupational Highlights

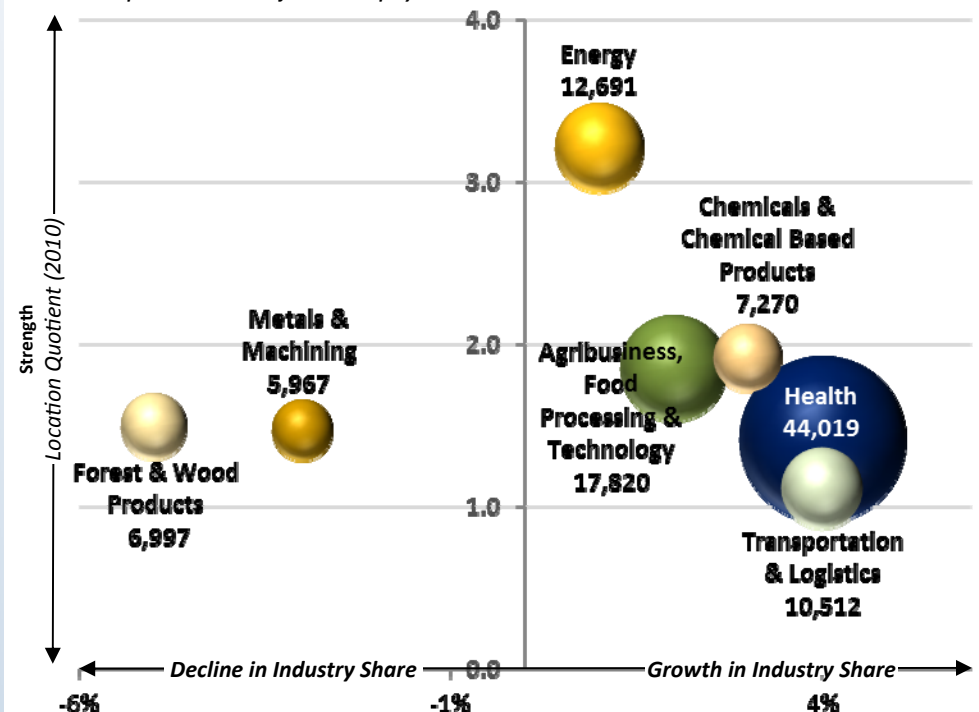
### Industry Drivers



Source: EMSI Complete Employment - 1st Quarter 2011, accessed June 2011

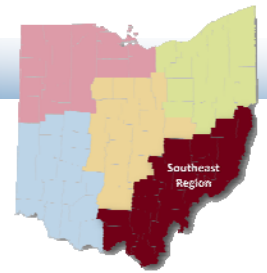
### Current Job Base Analysis & Estimated 5-Year Change

Bubble size represents number of current employees



Five-year Projected Change in Location Quotient

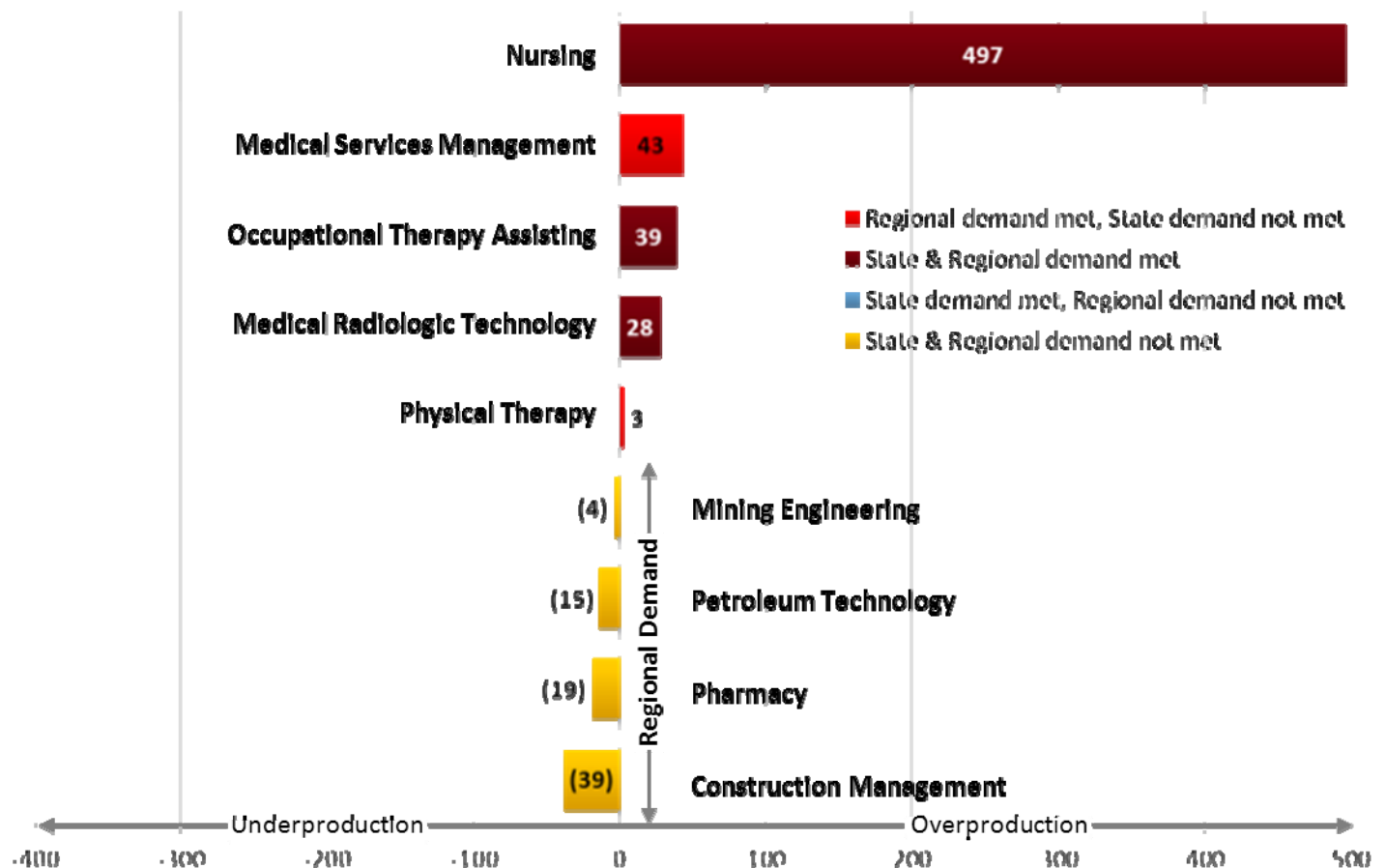
Source: EMSI Complete Employment - 1st Quarter 2011, accessed June 2011



## Regional and State Workforce Supply Challenges

The US Department of Labor's *Occupational Supply and Demand System* relates occupations with postsecondary courses. In this way, the demand for occupations can be related to the supply of graduates. Gaps are created by both oversupply and undersupply. Southeast Ohio has a relatively good balance of supply and demand, with the exception of nurses wherein oversupply is the case in the data for every region of Ohio. While there appears to be a current oversupply of nurses, forecasts show that demand should become strong in 2013 and continue to climb from that point.

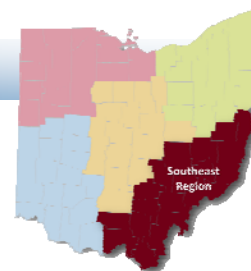
Other occupational groups with some oversupply, such as medical services management and physical therapists, are in occupational groups where the State has an undersupply. Therefore, those graduates could help meet statewide demand.



Note: A retention factor was applied to the completers total. According to the Performance Report for Ohio's Colleges & Universities, 2006, the in-state retention rate for those with a bachelor's degree or higher was roughly 73% for Ohio & 87% for individuals with an associate's degree. In Engineering, the retention factor is 68% for those with a bachelor's degree, 44% for those with a master's degree, and 28% for those with a doctoral degree.

Source: EMSI Complete Employment - 1st Quarter 2011, accessed June 2011

## SOUTHEAST OHIO: Industry Driver &amp; Occupational Highlights



## Occupational Concentration

The table below presents a comparison of occupational groups in terms of their relative concentration in Southeast Ohio, the projected job growth, and annual openings. Selected occupations, requiring an associate's degree or more, are presented. Southeast Ohio's strongest concentrations of employment are in petroleum technology and mining engineering (LQs= 2.8 and 2.5, respectively). Several health occupations are also strongly concentrated, such as occupational therapy assistants and medical radiologic technology (LQs=1.7 and 1.6, respectively).

	Medical Services Management	Nursing	Occupational Therapy Assisting	Physical Therapy	Pharmacy	Medical Radiologic Technology	Petroleum Technology	Chemical Technician	Mining Engineering	Construction Management	
<b>2011 Jobs</b>	901	6,901	126	395	587	726	204	132	68	1,605	<b>Southeast Ohio</b>
<b>2011-16 Growth</b>	76	560	16	62	21	51	43	-4	12	131	
<b>Annual Openings</b>	32	230	5	17	19	21	15	4	4	39	

Source: EMSI Complete Employment - 1st Quarter 2011, accessed June 2011

A predominant occupational group in Southeast Ohio is the production occupations group. With nearly 21,000 production jobs, this occupational group comprises 6 percent of the total workforce. While the occupational group is not forecasted to add new jobs, nearly 3,200 replacement jobs are forecasted to be needed by 2016. Replacement jobs arise from workers retiring from or permanently leaving the occupation.

The 15 occupations presented in the table below account for 11,498 jobs or 56% of all production jobs in Southeast Ohio. Only 268 new job openings are expected across these 15 occupations in the next five years. On the other hand, an additional 1,452 replacement workers will be required. The translation of these 15 jobs to sustaining the region's concentration and growth in the industries presented on page one is obvious, underscoring the importance of production jobs to Southeast Ohio.

SOC Code	Description	2011 Jobs	2016 Jobs	Change	% Change	Openings
<b>51-1011</b>	First-line supervisors/managers of production and operating workers	1,494	1,439	(55)	(4%)	135
<b>51-2092</b>	Team assemblers	1,434	1,431	(3)	0%	258
<b>51-9198</b>	Helpers--Production workers	1,233	1,165	(68)	(6%)	137
<b>51-9111</b>	Packaging and filling machine operators and tenders	1,033	1,048	15	1%	127
<b>51-9061</b>	Inspectors, testers, sorters, samplers, and weighers	829	812	(17)	(2%)	89
<b>51-3092</b>	Food batchmakers	662	718	56	8%	135
<b>51-4121</b>	Welders, cutters, solderers, and brazers	655	664	9	1%	121
<b>51-4041</b>	Machinists	606	616	10	2%	68
<b>51-6011</b>	Laundry and dry-cleaning workers	592	648	56	9%	108
<b>51-7011</b>	Cabinetmakers and bench carpenters	561	462	(99)	(18%)	126
<b>51-9199</b>	Production workers, all other	554	544	(10)	(2%)	81
<b>51-9023</b>	Mixing and blending machine setters, operators, and tenders	540	611	71	13%	128
<b>51-8031</b>	Water and liquid waste treatment plant and system operators	489	514	25	5%	78
<b>51-4031</b>	Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	420	363	(57)	(14%)	51
<b>51-9041</b>	Extruding, forming, pressing, and compacting machine setters, operators, and tenders	396	422	26	7%	78

Source: EMSI Complete Employment - 1st Quarter 2011, accessed June 2011